

Renewable energies already providing 236,000 jobs in Germany in 2006

Research projects and publications by the BMU on work and training in the field of renewable energies

The continuing boom in the renewable energies' sector created more jobs in Germany last year than previously assumed. According to a BMU research project conducted by the Zentrum für Sonnenenergie- und Wasserstoff-Forschung Baden-Württemberg (ZSW, Stuttgart) which was completed in September 2007, in 2006 renewables already provided 235,600 people with jobs. This is an increase of nearly 50% compared to 2004 (around 160,000 jobs).

The project first estimated gross employment linked to investment in installations, to operation and to the required supply of biomass. This was based on a study concluded for the BMU by the same research team in mid-2006 ("Impact of the Expansion of Renewable Energy on the German Labour Market", focusing especially on foreign trade). This study reckoned 157,000 jobs for 2004. In 2006 gross employment thus calculated already stood at around 231,000 jobs, of which nearly 60% (134,000 jobs) could be attributed to the EEG.

For the first time, the project collected sound data on employment arising from public and not-for-profit funding of renewables including those employees to be ascribed to the civil service. The gross figure results from research activities financed from public funds and from non-profit-making institutions in support of renewable energies. A total of around 4,300 new jobs were calculated for 2006 (2004: 3,400 jobs).

In the German renewables branch production capacities are currently being heavily expanded, especially in the field of photovoltaics. In 2006 this contributed to employment in Germany with a total of around 23,500 jobs.

Germany's foreign trade in renewable energy goods and services has an essential influence on domestic employment figures. The previous report published in 2006 therefore analysed international development of the expansion of renewable energies using the scenarios then available and estimated the future development of the global market. This analysis has now

been reviewed using publications from the past two years. The result confirms previous estimates: we can continue to assume that global investments in the renewables sector as a whole (2004: 43 billion €₂₀₀₀/a) will increase to 250 billion €₂₀₀₀/a by 2020 and may even reach 460 billion €₂₀₀₀/a by 2030.

Besides the gross employment in the renewable energies sector, net employment - adjusted for possible negative employment effects - also plays an important role in the political discussion. The study concluded last year showed that, based on realistic assumptions on the development of future energy prices and exports, clearly positive net effects can also be expected in the mid- to long-term. The follow-up project now submitted underlines this with another model calculation using an improved method for the year 2006: according to this, compared to a fictitious "zero RE scenario", the net employment effects last year of the expansion of renewable energies was already 67,000-78,000 jobs.

The employment effects of the expansion of renewable energies are becoming more significant for energy supply, both in Germany and worldwide. A number of scientific studies have taken this circumstance into account in recent years. In order to achieve a comprehensive overview of the currently very different methodical approaches and results, at the end of April 2007 the BMU organised the international workshop "renewable energies: employment effects". This workshop discussed research results from different countries and regions. The main results of the workshop were summarised in a separate report. This offers an insight into the different approaches for calculating employment effects, including the advantages and disadvantages of each method and shows where the need for further discussion and research lies. A continuation of the international dialogue is intended.

In this context an important aspect is the question of training and further training of the workforce needed in the field of renewable energies. Already certain sections of the branch are concerned there will be a lack of qualified staff. This became clear at the conference on "training for renewable energies – lack of qualified staff a break to growth?" which took place at the beginning of September in Berlin. The conference included the presentation of the status report drawn up by Wissenschaftsladen Bonn "Work and Training for Renewable Energies" ("Arbeit und Ausbildung für Erneuerbare Energien" <http://www.erneuerbare-energien.de/inhalt/39917/>). The aim of Federal Environment Minister Sigmar Gabriel's

ongoing training initiative is to provide additional training places in the growth branches environmental technology/renewable energies in the coming years. To date 35 companies and associations have joined the scheme, pledging more than 5,100 additional training places. One third of those participating in the initiative work in the field of renewable energies.